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| (54) Title: METHODS FOR DISCOVERING LIGANDS | | | |
| (57) Abstract | | | |
| A method of identifying one or a combination of ligands, e.g. oligonucleotides or analogues, that interact specifically with a target, e.g. a DNA or an RNA molecule having a secondary or tertiary structure. One ligand may be pre-reacted to open up the target for interaction with other ligands forming an array on a solid surface. | | | |

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Fig.1.

| | | A | | C | | G | | T | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | A | C | G | T | A | C | G | T | A | C | G | T | | | | | | | | | | | | | | |
| A | A | A | A | C | A | G | A | T | A | A | A | C | A | G | A | T | A | A | A | C | A | G | A | T | A | | |
| | C | A | A | A | A | A | A | A | A | C | A | C | A | C | A | G | A | G | A | G | A | G | A | T | A | T | A |
| | G | A | C | C | C | G | C | T | C | A | C | C | C | G | C | T | C | A | C | C | C | G | C | T | C | C | |
| | T | A | A | A | A | A | A | A | A | C | A | C | A | C | A | G | A | G | A | G | A | G | A | T | A | T | A |
| C | A | A | A | A | A | A | A | A | A | C | A | C | A | C | A | G | A | G | A | G | A | G | A | T | A | T | A |
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| | G | A | A | A | A | A | A | A | A | C | A | C | A | C | A | G | A | G | A | G | A | G | A | T | A | T | A |
| | T | A | A | A | A | A | A | A | A | C | A | C | A | C | A | G | A | G | A | G | A | G | A | T | A | T | A |
| G | A | A | A | A | A | A | A | A | A | C | A | C | A | C | A | G | A | G | A | G | A | G | A | T | A | T | A |
| | C | A | A | A | A | A | A | A | A | C | A | C | A | C | A | G | A | G | A | G | A | G | A | T | A | T | A |
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| T | A | A | A | A | A | A | A | A | A | C | A | C | A | C | A | G | A | G | A | G | A | G | A | T | A | T | A |
| | C | A | A | A | A | A | A | A | A | C | A | C | A | C | A | G | A | G | A | G | A | G | A | T | A | T | A |
| | G | A | A | A | A | A | A | A | A | C | A | C | A | C | A | G | A | G | A | G | A | G | A | T | A | T | A |
| | T | A | A | A | A | A | A | A | A | C | A | C | A | C | A | G | A | G | A | G | A | G | A | T | A | T | A |

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Fig.2a.

Analysis on scanning arrays

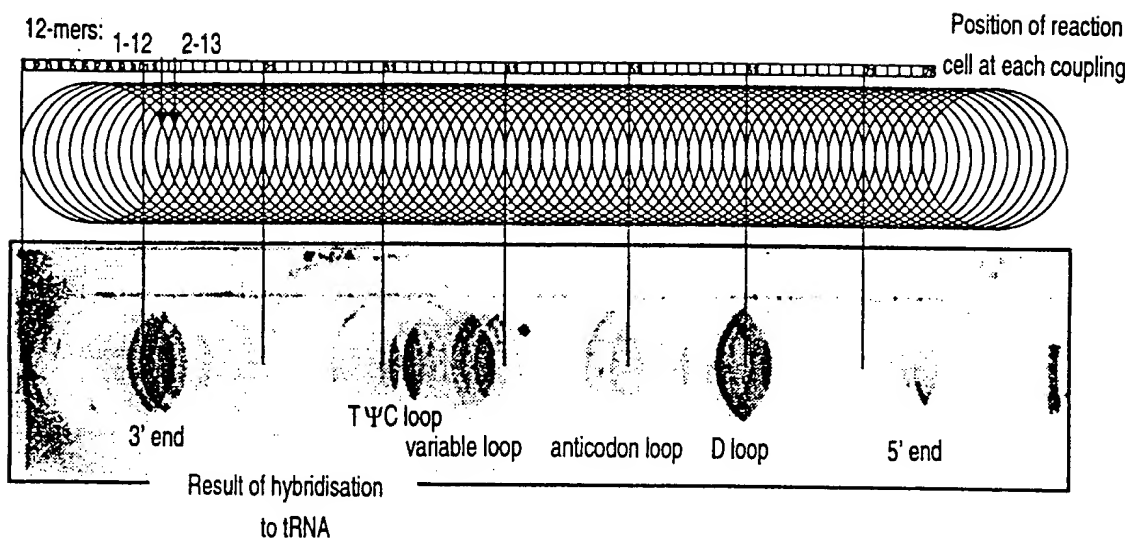
tRNA^{phe}

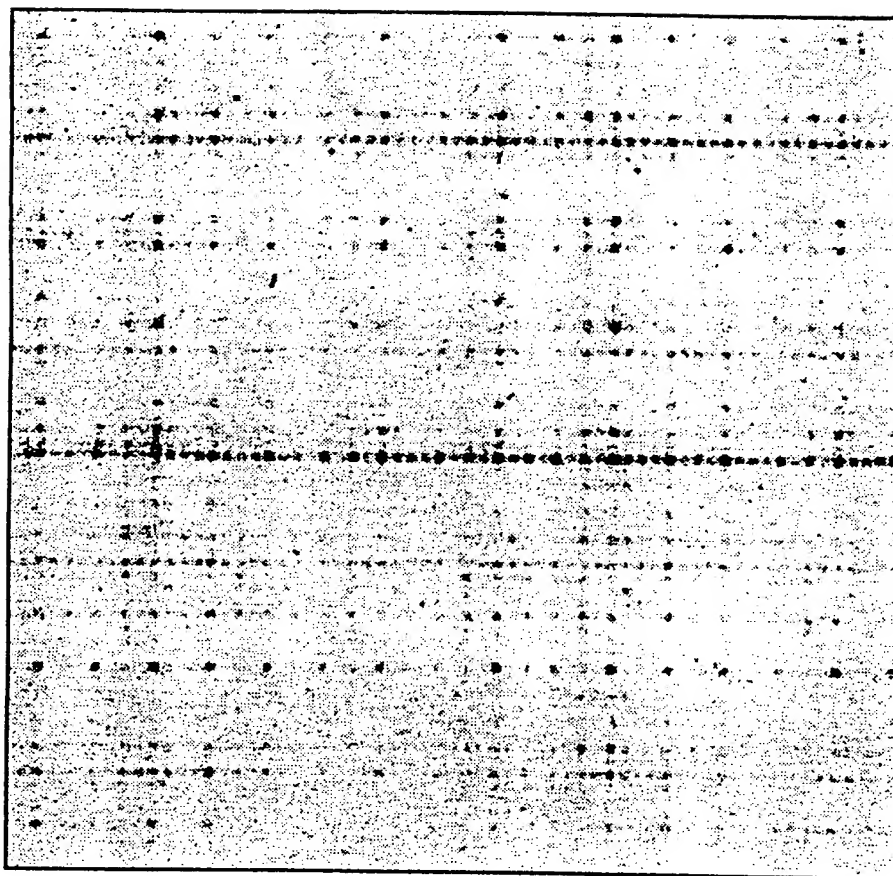
Fig.2b.

HIV TAR



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Fig.3.

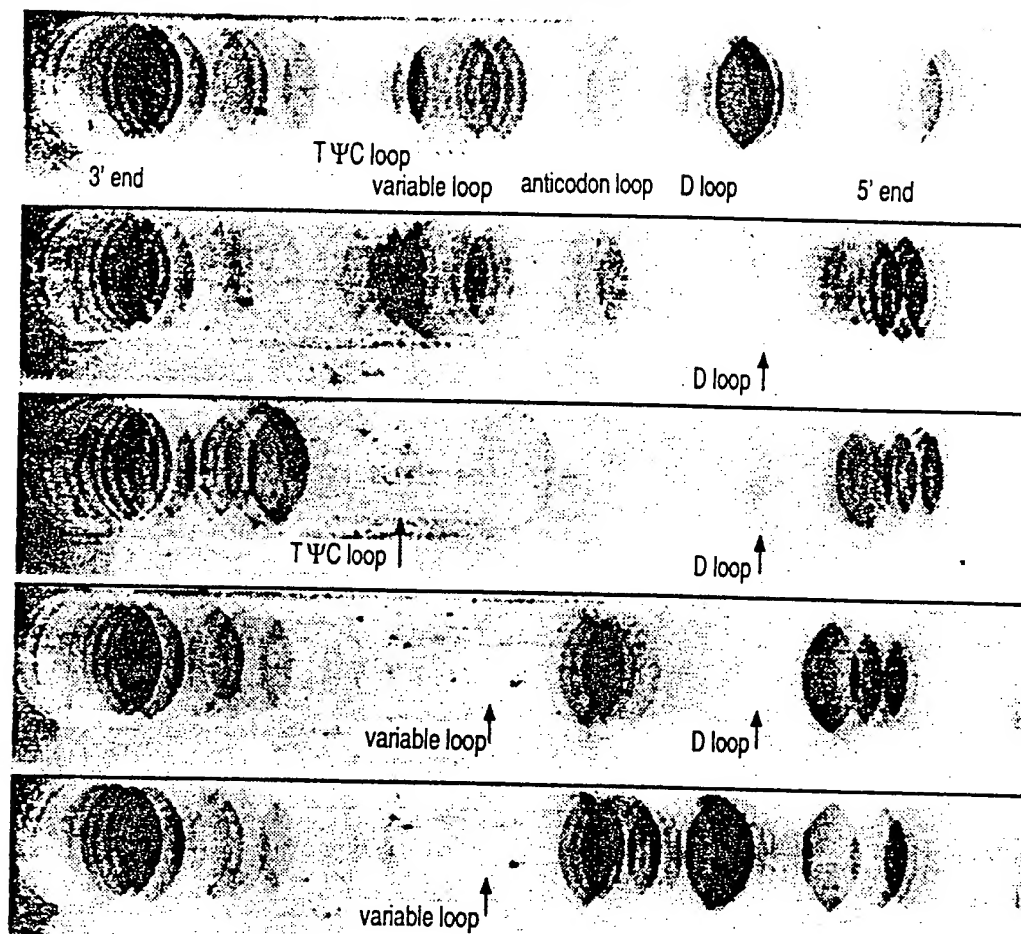


Hybridisation of tRNA^{phe}
to an array of the type $N_3X_2N_3$

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Fig.4.

tRNA with cooperative antisense interactions



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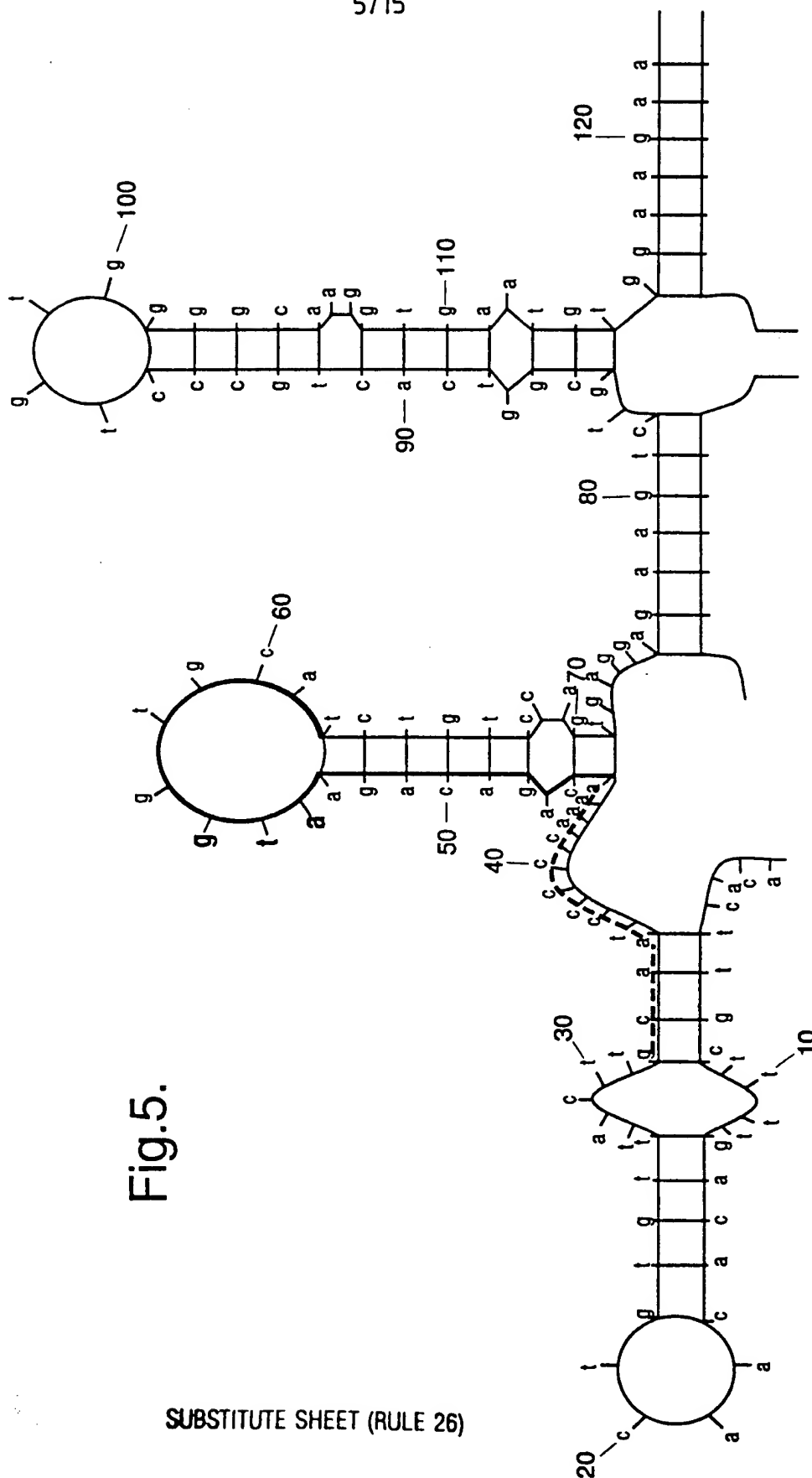
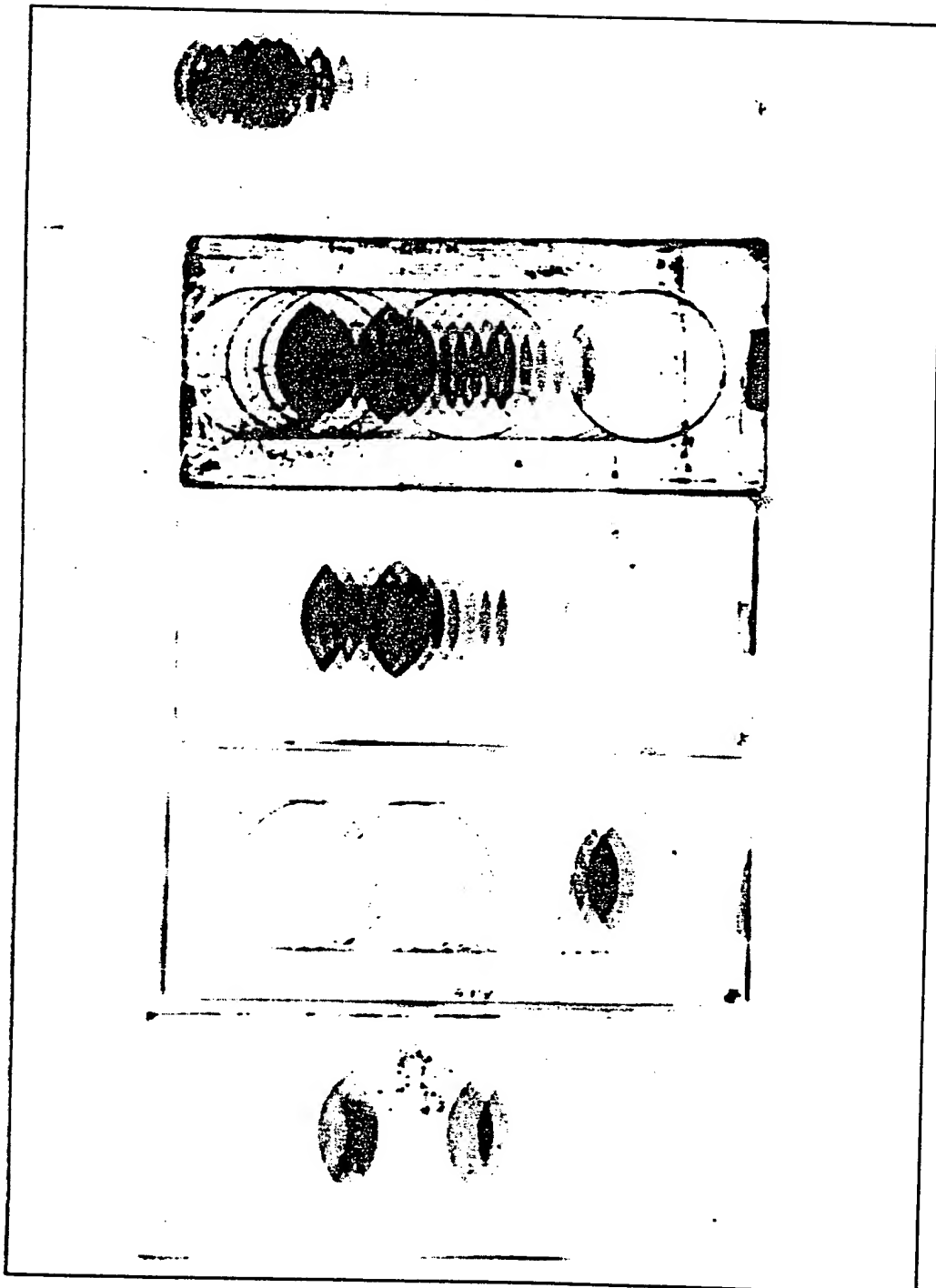


Fig. 5.

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Fig.6.



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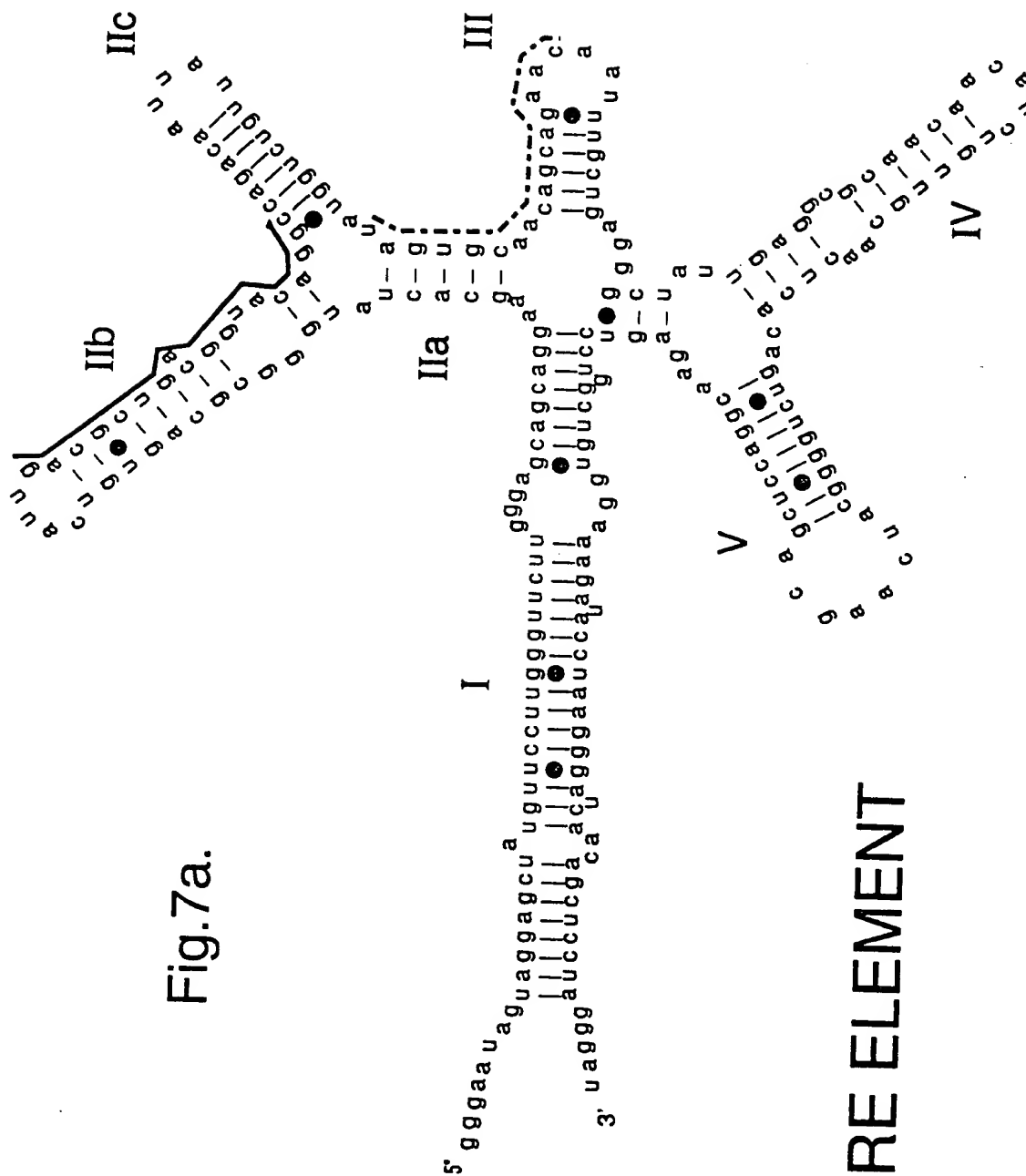
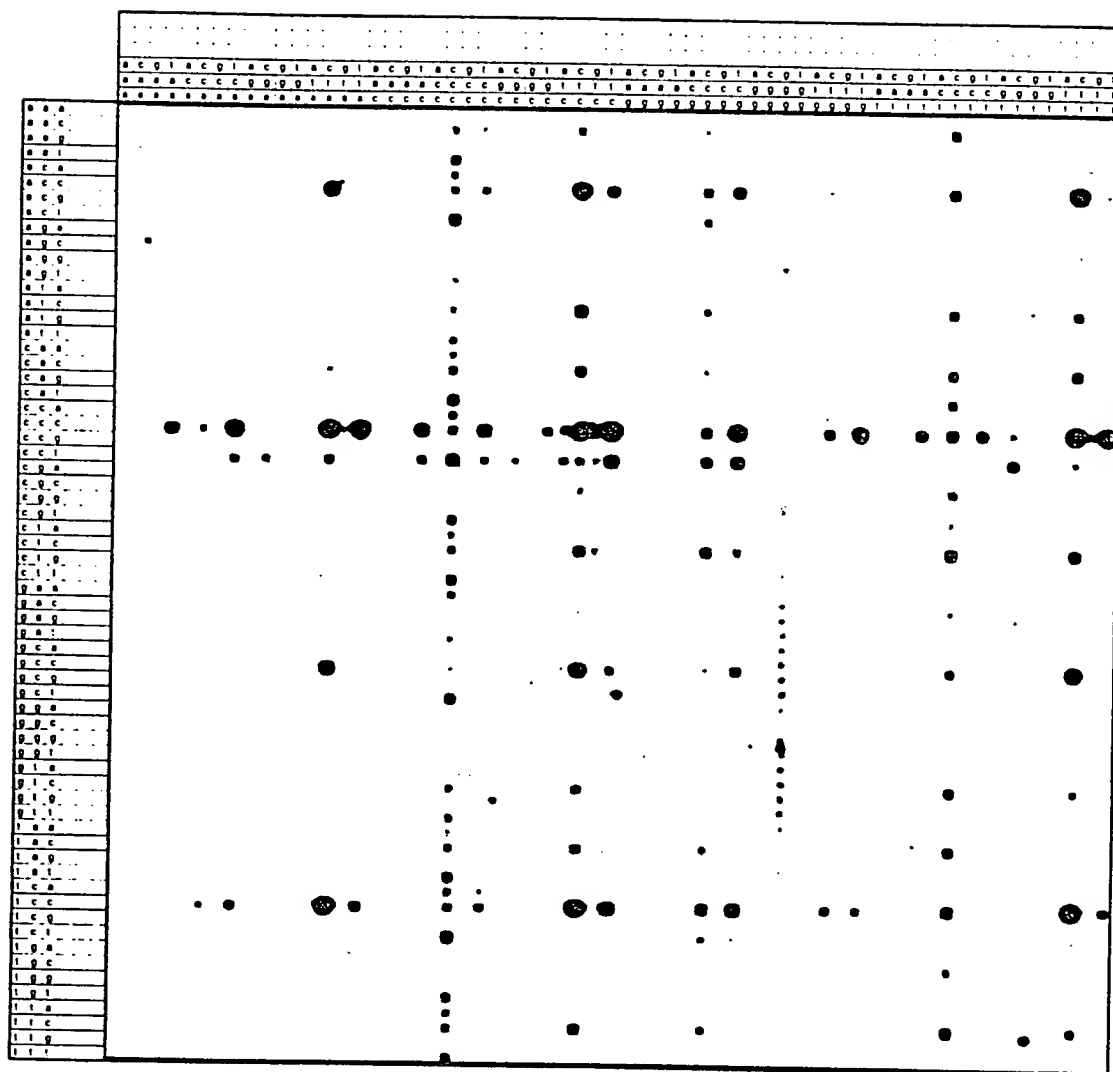


Fig.7a.

HIV RRE ELEMENT

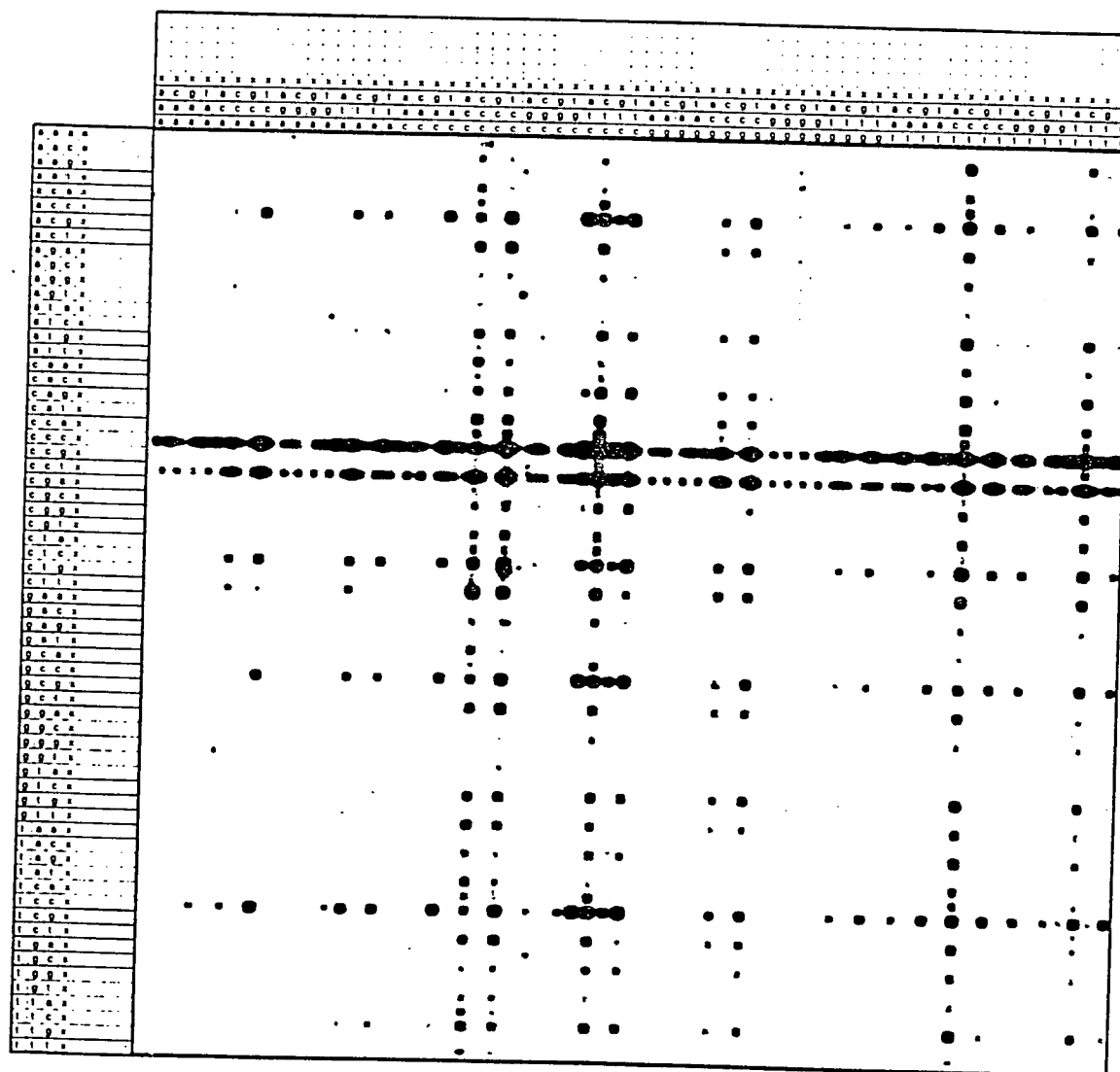
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Fig.7b.



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Fig.7c.



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Fig.8a.

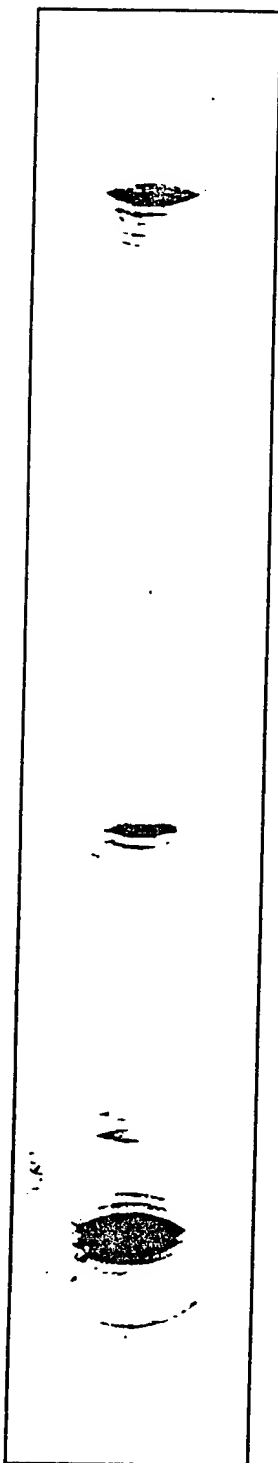
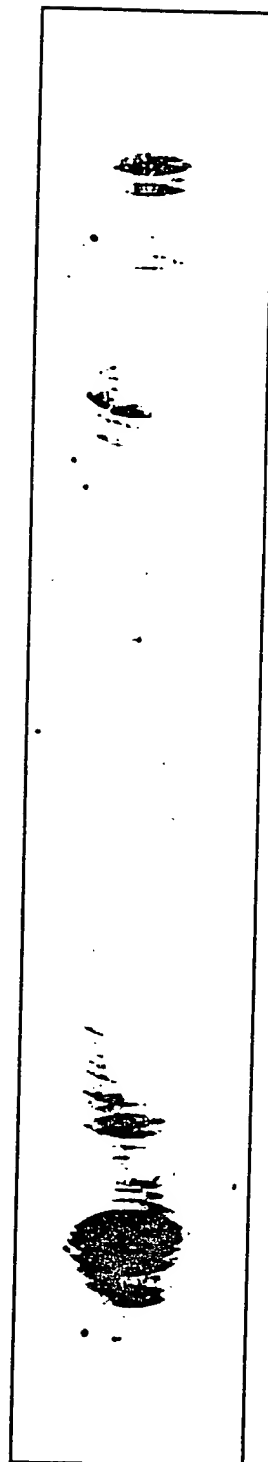
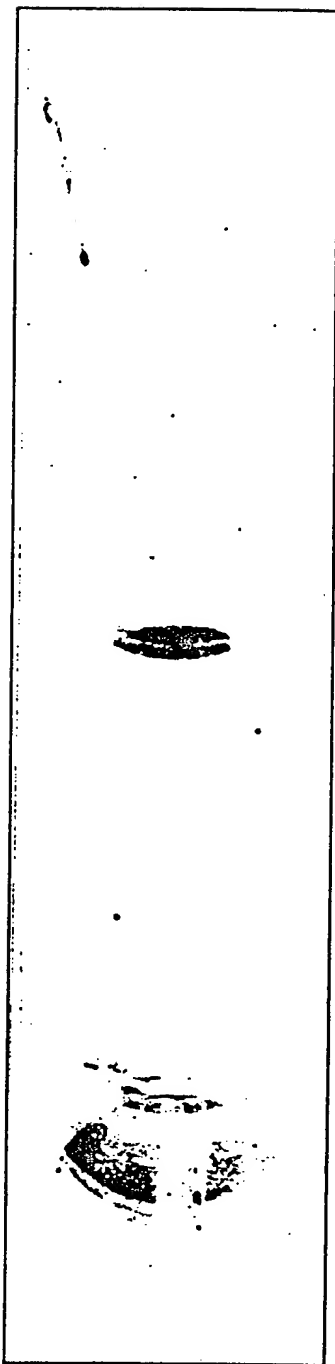


Fig.8b.



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Fig.8c.



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Fig.9a.

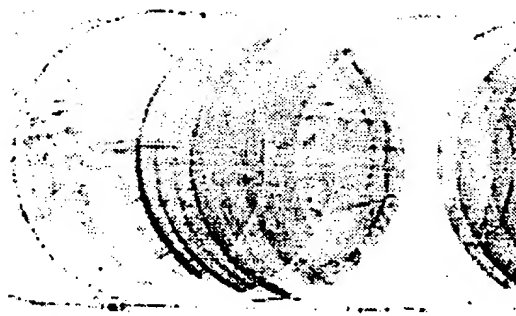
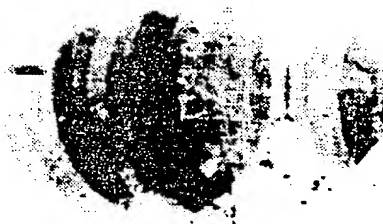


Fig.9b.



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Fig.10a

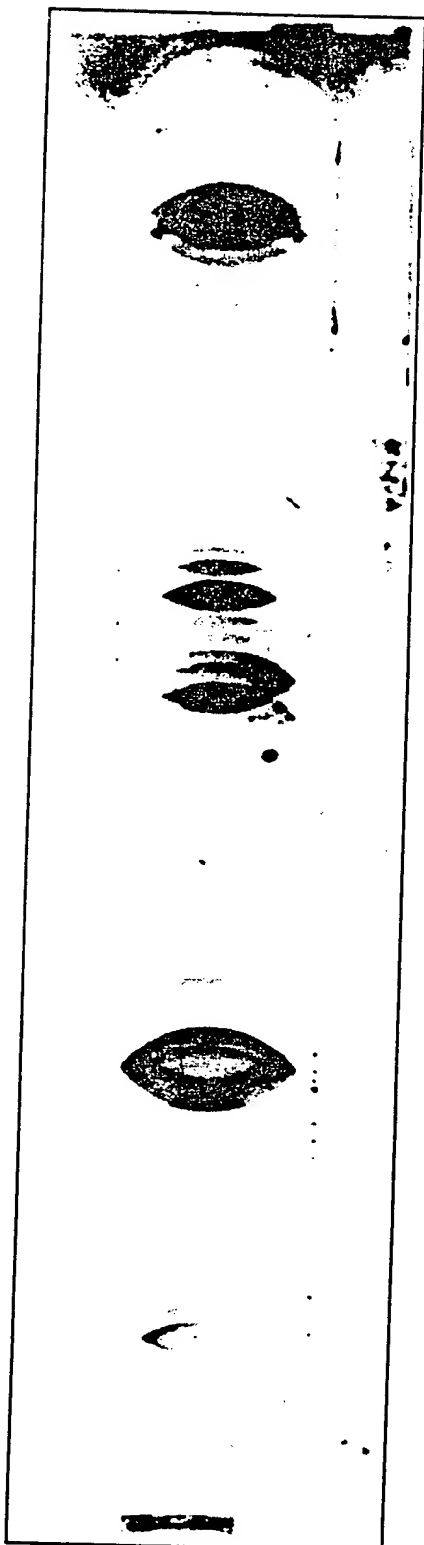
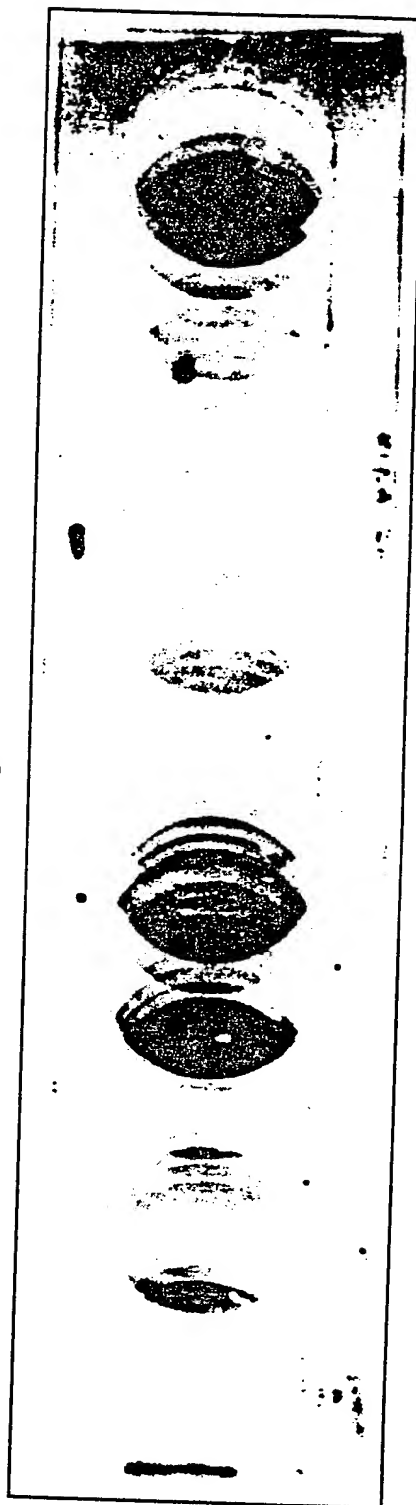


Fig.10b

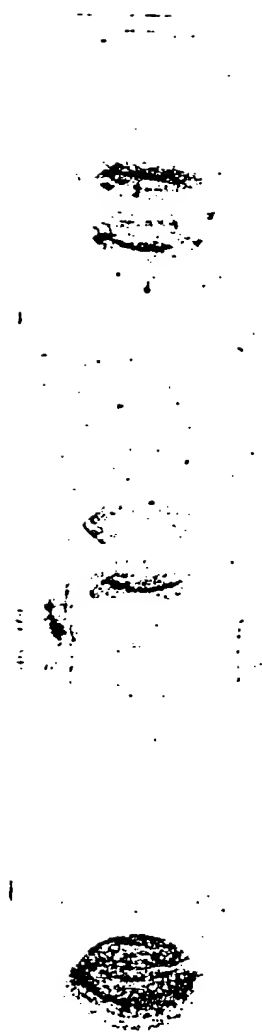


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Fig.11a.

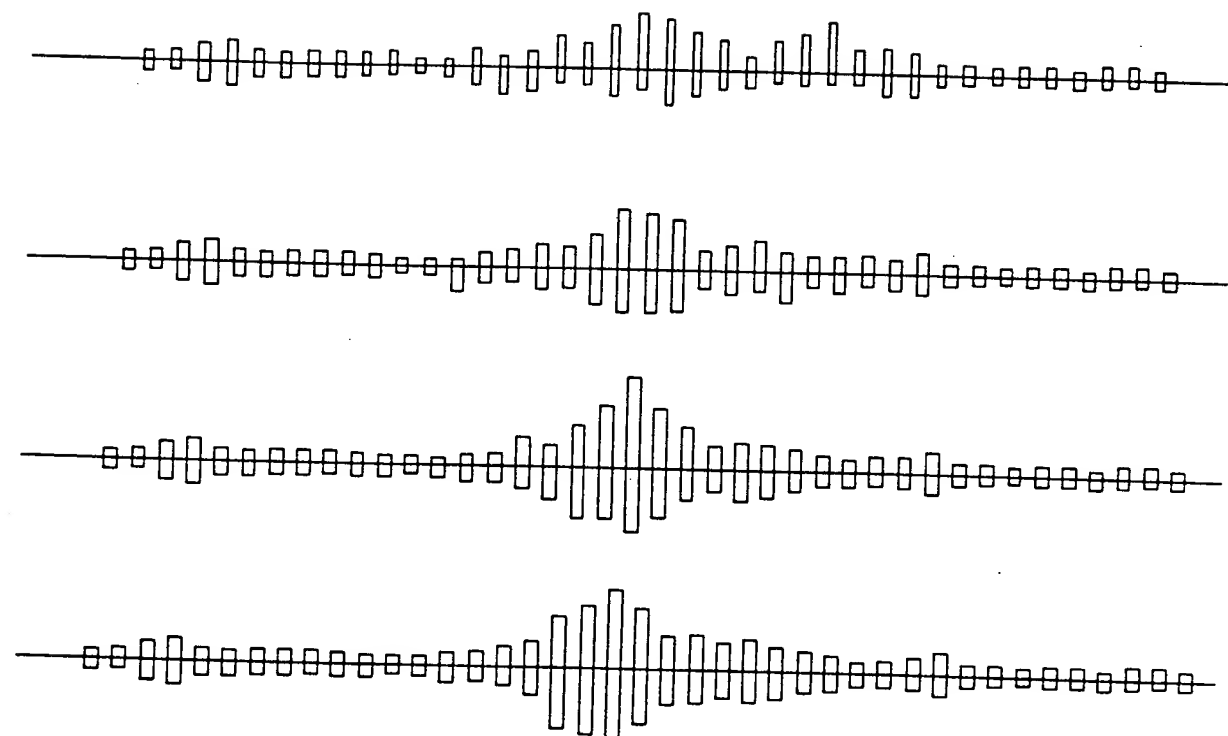


Fig.11b.



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Fig.11c.



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